Visualizing the Future of Expanding Access to Care: The Virtual Dental Home

Take a moment to imagine what your community would look like if everyone was able to receive basic, comprehensive healthcare services in settings that were easily accessible for their specific needs. Now, consider today’s reality. Anywhere from one third to half of the population in California goes without regular oral care. The Virtual Dental Home, (Health Workforce Pilot Project #172), provides critical oral health services to the most vulnerable and underserved populations among us, while opening up new avenues for dental hygienists to deliver care to a growing patient base. Based on the healthcare reform principles of the “Triple Aim”, the Virtual Dental Home (VDH) creates a perfect opportunity to improve the health of thousands while maximizing the oral health workforce.

Early intervention and disease prevention, key components of dental hygiene care, are widely accepted as fundamental to improving oral health. The VDH demonstration project seeks to improve the oral health of underserved Californians through a combination of workforce and policy initiatives. Defined as a community based oral health delivery system, the VDH allows people to receive preventive and early intervention therapeutic services in the community settings where they live or receive educational, social, or general health services.

Spearheading the pilot project is its creator Dr. Paul Glassman, Professor of Dental Practice and Director of the Pacific Center for Special Care at the University of Pacific, Arthur A. Dugoni School of Dentistry. As Dr. Glassman explains, “the Virtual Dental Home provides a mechanism for expanding oral health services into community sites while demonstrating innovative ways to deliver oral health care. The goal is to reach populations of children and adults who face significant barriers in accessing dental services in traditional offices and clinic settings.” Funding for the project comes from a number of sources including grants from the California Department of Public Health through the Health Resources and Services Administration, American Dental Hygienists’ Association Institute for Oral Health, California Health Care Foundation, Verizon Foundation, California Dental Association Foundation, First Five Commissions of Los Angeles and San Mateo Counties, and the San Diego Foundation in addition to a number of others. These grants have enabled the expansion of oral health services into community sites at a time when so many services have been reduced or eliminated.

Telehealth—An Innovative Technology Application

Telemedicine is defined as the use of electronic information and communication technologies to provide and support health care delivery when distance separates the participants. The use of these innovative technologies are key components of the VDH. The broader term, telehealth, includes telemedicine as well as a variety of other services. Optimal use of telehealth technology within such projects as the VDH has the potential for increasing access to health care for all of California residents while improving clinical efficiency, increasing access to health information, and reducing the cost of providing necessary health care. California led the nation by developing the guidelines for this innovative technology with the Telemedicine Development Act of 1996. The Telehealth Advancement Act of

The “Triple Aim” optimizes health system performance by accomplishing three goals simultaneously.

- Improving the patient experience of care
- Improving the health of populations
- Reducing the per capita cost of health care

The ideal healthcare delivery system would be designed to:

- Eliminate barriers that contribute to oral health disparities
- Prioritize disease prevention and health promotion
- Provide oral health services in a variety of settings outside of the traditional brick and mortar practice
- Utilize an expanded array of competent providers who are authorized to provide evidence-based care while being compensated for their services
- Include collaborative and multidisciplinary teams working across the health care system
- Foster continuous improvement and innovation
2011 further updated California law and removed some of the policy barriers for the use of telehealth technologies. Teledentistry is now emerging as a viable option addressing the barriers of location and access by linking oral health practitioners and patients in the community with dentists at remote office sites. Sharing information and knowledge from a distance has dramatically changed the practice of healthcare and holds special promise for the delivery of oral healthcare services to our most vulnerable populations.6

### Health Workforce Pilot Project #172

**California Health Workforce Pilot Projects**

- First established in 1972
- Test, demonstrate, and evaluate new or expanded roles for healthcare professionals
- Provide data to support the need for changing the scope of practice or regulatory changes in health care delivery
- 171 HWPP pilot programs have been carried out between 1973 and 2005
- The Registered Dental Hygienist in Alternative Practice model was first tested as a pilot project

The purpose of Health Workforce Pilot Project #172 (The VDH demonstration project) is to evaluate the efficacy and safety of two duties performed by allied dental professionals who are part of an ongoing community-based system of care. While most of the duties carried out by providers in this community-based system are already allowed under existing law, the new duties will require expanding the scope of practice for these dental professionals. The new duties being evaluated under this HWPP are:

- Determining, based on protocols, which radiographs to take, if needed, to facilitate an initial oral evaluation by a dentist.
- Placement of “Interim Therapeutic Restorations” (ITR) when directed to do so by a collaborating dentist.

While the short-term goal of HWPP #172 is to evaluate the safety and the efficacy of these new duties, the long-term objectives are to allow allied health personnel the opportunity to work with underserved populations in community settings outside the walls of the traditional dental office. With collaborating dentists working from a distant setting to facilitate the appropriate care for patients, the development of new models of care has the potential to improve the oral health of underserved populations in addition to employing oral health professionals in innovative and exciting ways.

The project has been divided into three phases: planning, implementation and evaluation of the data. Eleven allied dental professional participants (1 RDAES, 2 RDHs and 8 RDHAPs) were enlisted and trained during the initial planning phase. These participants were instructed in the standard protocol for determination of necessary photographs and radiographs, the use of the intraoral camera, data collection, the use of electronic health record systems, and the criteria and technique for placement of ITRs. All participants were calibrated in all phases of the project. Statewide demonstration sites and the collaborative dentists were identified during the planning phase.

The second phase of the project, implementation of care, is currently in progress. VDH demonstration sites include Head Start Preschools, elementary schools, community clinics, residential facilities for people with disabilities, and long-term care facilities for dependent and elderly individuals. Initial patient assessments are carried out by the allied dental professional in the same manner as in a traditional dental office or clinic setting. The main difference is that the data is transmitted electronically via telehealth technology to a dentist in a remote location for evaluation and treatment planning. This telecommunication technique is defined as “store and forward”.

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**What’s an “ITR”?**

An Interim Therapeutic Restoration (ITR) is a fluoride-releasing glass ionomer that can be placed in a cavitated lesion that does not involve the pulp. ITRs can be placed without the need for local anesthesia or a dental drill. ITRs stabilize the progression of dental caries making them ideal for infants, children, adolescents and individuals with special health care needs when conventional restorative care is not available or care does not need to be deferred.
The comprehensive data collection includes the following procedures:

- Oral soft tissue examination
- Intra and extra oral digital photos including occlusal images
- Appropriate x-rays using the NOMAD™ portable x-ray unit and a digital sensor
- Dental charting
- Periodontal assessment
- Saliva assessment
- CAMBRA caries assessment

The patient’s electronic records are uploaded from a laptop onto the secure, cloud-based, electronic health records system called Denticon. Once all the information has been uploaded, the collaborating dentist is notified by email that the patient records are ready for review. After reviewing the records, the dentist develops a treatment plan outlining what areas of the mouth will require treatment and how the treatment should be performed. Patient care including prophylaxis, fluoride varnish application, and the placement of any necessary ITRs, is performed by the allied dental professional in the patient’s community – be it the school setting, group home or long term care facility. Patients may also be referred to a dental practice in their area for appropriate care if the collaborating dentist identifies more extensive treatment needs. The VDH project not only promotes oral health and disease prevention, but also creates a mechanism to track and support the individual’s need for additional and follow-up dental care.

What the Future Holds

Data is still being collected for the VDH demonstration project. However, two years into the project, early analysis indicates that the project holds great promise as a cost effective mechanism to impact the access, care, and health of California’s diverse communities. Legislation was introduced in April of 2013 by Assemblymen Bocanegra and Logue (AB1174) to expand the scope of practice for RDHAPs, RDHs and RDAESs. AB1174 has the potential to support the practice of teledentistry as well as enable the reimbursement by Medi-Cal for VDH treatment. The bill has been referred to the Assembly Committee on Health for further discussion and has been put on a two year cycle. This is definitely legislation to watch, considering the impact it will have on expanding the ways care can be delivered and increasing the avenues for compensating providers. Telehealth and teledentistry hold great promise for meeting the “Triple Aim” of healthcare reform.7 Bringing care to the vulnerable in their communities holds the promise of improving the overall experience of care, improving oral health and reducing

What People Are Saying About the VDH Demonstration Project

“The virtual dental home demonstration project has been an incredible opportunity to utilize all my skills as a preventive oral health specialist.”
~ RDHAP Participant

“Because the dentist is not physically present, the extensive initial intake assessment and case management aspects are extremely important to improved health outcomes for the patient.”
~ RDHAP Participant

“The use of telehealth and the eyes, ears and communicative skills of the allied dental professional are designed to provide a facility, such as the skilled nursing home, with comprehensive care for the individual.”
~ RDHAP Participant

“Just being able to be seen is a positive asset. As a school nurse who has been working in the district boundaries for over 20 years, I have seen the struggles families must overcome to get their children in for dental care.”
~ VDH Site Administrator

“Having the services on the school site has allowed students to receive care in a timely manner without missing school. The hygienists have helped the students to view dental care as a positive, rather than frightening, experience.”
~ VDH Trainee

“We are so grateful and appreciative of your work. School dental care really helps kids and parents to detect any problems as early as possible. Thank you so much!”
~ Parent

“The VDH is located in the exact community that it services. Access to health services is always improved when the services provided are in your own neighborhood.”
~ VDH Site Administrator

“My wish is that the program will receive more notice in the dental community and that it will become available to more groups within our underserved communities.”
~ VDH Collaborating Dentist
the cost of care while expanding the opportunities for better utilization of the oral health care workforce.

For more information on the Virtual Dental Home and other community programs of the Pacific Center for Special Care visit: http://dental.pacific.edu/Community_Involvement.html

References are available in the online version of this issue at www.cdha.org

About the Author
Carol Lee, RDH, MS, has been in practice since 1977 with a career that includes dental hygiene education, clinical practice, and public health. A member of the adjunct faculty at Carrington College, she is a contributor to several journals and a requested speaker for continuing education in ergonomics and clinical practice. Passionate about community dental health, Carol received the first ADHA Community Outreach Award and has organized countless outreach programs and activities, particularly for children, seniors and the homebound. She is an American Academy of Dental Hygiene Fellow, past CDHA president and serves on the CDHA Journal Editorial Advisory Board and the ADHA Diversity Committee.

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